

3/3/20; 10:30am

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Solution of grandfather's paradox using "AND" logic gate by Arshin Springrose

The attempt of this research paper is to deliver a logical result of the famous grandfather's paradox using logic gate.

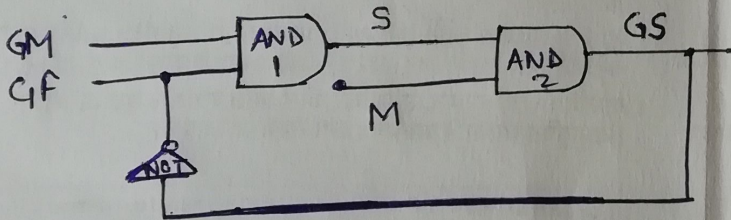
Points considered for getting the result:

1. Human reproduce hence need male and female. Therefore in order to get a "off spring", male and female (parents) act as a logical "AND" gate.

Description: The grandfather and grandmother reproduce to give birth to their "son" [logical AND]. The "son" reproduces with a female (wife) to give birth to their "son". [grandson to grandfather]. Father & mother act as another logical "AND" gate. The "son" then uses time machine to travel to past and "kill" the Grandfather. So this killing of grandfather is a logical "NOT" gate that this forms a feedback loop (system). Assuming that whenever the feedback is logically "HIGH" state cause the logical state of Grandfather to become logically "Low".

GF = Grand Father Father = F , H = logical High
GM = GrandMother Mother = M L = logical Low.

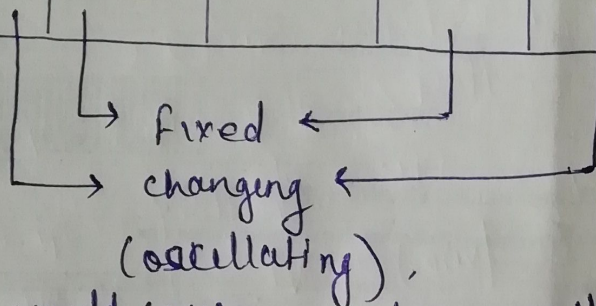
So, the circuit formed becomes;



* Initially, GF = High, GM = HIGH
causes S = HIGH, M is given
HIGH M = HIGH, causes GS = High
a logical high causes the GF
(first time)

to become low. (killing effect), this causes AND gate ①
to become low (son ~~and~~ father dies) & , but M is still
high, causes AND gate ② to become "low" that is grand
son dies (during the second time loop). GS = low causes
GF to become high, hence ~~S~~ AND₁ = High = S, M = HIGH
(Grandmother, mother state is fixed as we are only killing the
Grandfather), hence AND₂ = High = GS = High. So we can see
that output & input keep changing the state (flip-flop).
High = alive, Low = dead.

loop	GF	GM	S	M	GS
T ₁	1	1	1	1	1
T ₂	0	1	0	1	0
T ₃	1	1	1	1	1
T ₄	0	1	0	1	0
⋮		1		1	⋮



As we can see GF, GS oscillate periodically.

This result only holds true when we consider one family in three generations. A general case of billions of human history population would be 'N'-logical AND at N-times in N-sequence of random sequence. Hence

for a big population, the overall state would be random as only any change in one logical

state would cause chain reaction in other logical states (domino effect), hence the output of the N-logical gates at N-times (cascade) would be unpredictable and a race around condition would arise. (undeterministic future). (unpredictable).

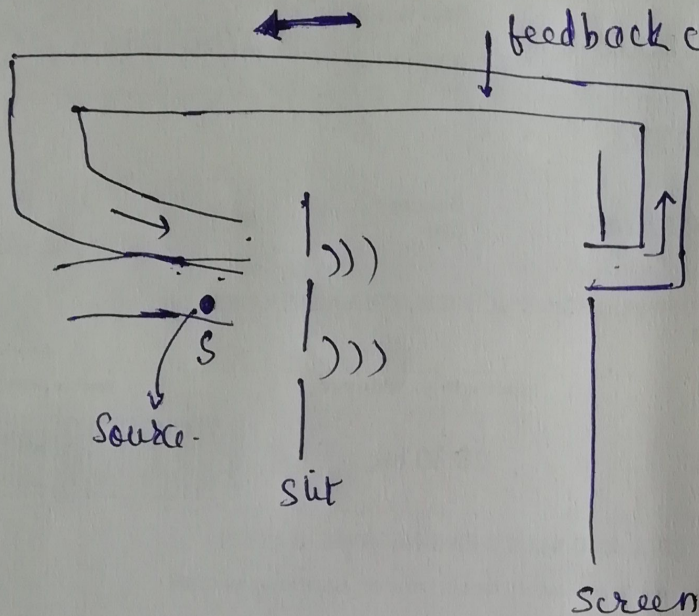
It's chaotic (random). Every time a small change occurs, output of overall system would change drastically. This problem can be understood in the Hitler-Einstein paradox. Since Einstein gave letter to US president to build atom bomb, suppose Hitler has a time machine to go back and kill Einstein to prevent atom bomb from being constructed. But killing Einstein would mean

no special relativity, no general relativity and hence no time machine. One action has infinite short and long term and distant reactions/consequences/effects/repercussion-. Affects will be there in all directions much like a ^{min}drop in a pool travels.

This logical way gives a idea of predicting a alternative history having active people (actors) but true result can't be obtained as we don't know all the actors as we don't know who will act when and where and how. (we are all black boxes)

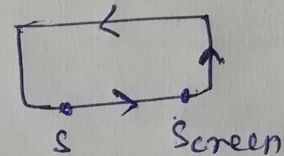
The grand father paradox can be formulated in a experiment similar to double slit experiment with feedback path and then find how the output changes.

[signal from screen to slit as feedback, but signal from 's' to screen via feedback channel is denied (only this case) (unidirectional path)



Case)

i)



(future to past)

ii)

